

538,042

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



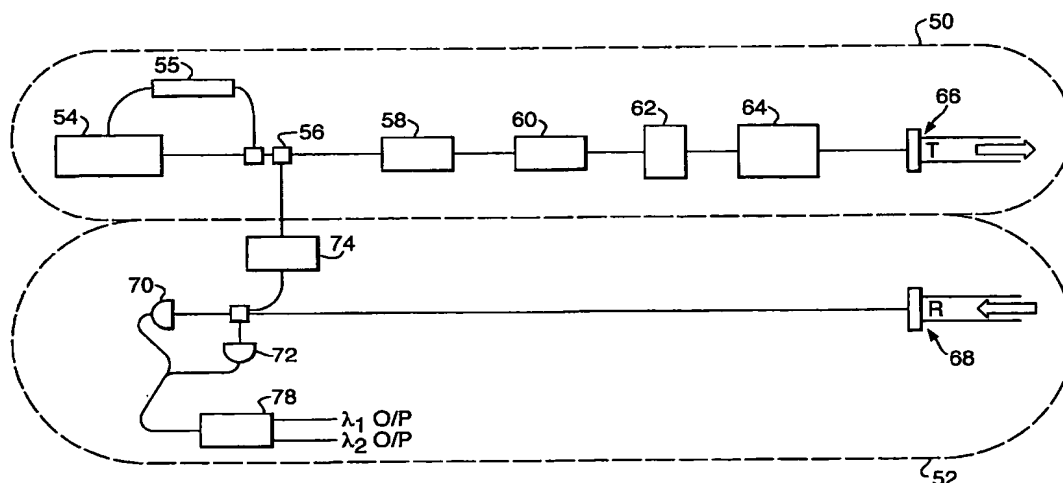
(43) International Publication Date
24 June 2004 (24.06.2004)

PCT

(10) International Publication Number
WO 2004/053518 A1

- (51) International Patent Classification⁷: **G01S 7/491**, 7/484
- (21) International Application Number: PCT/GB2003/005215
- (22) International Filing Date: 3 December 2003 (03.12.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 0228890.0 11 December 2002 (11.12.2002) GB
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- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Declaration under Rule 4.17:**
— of inventorship (Rule 4.17(iv)) for US only
- Published:**
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: LASER RADAR APPARATUS HAVING MULTIPLE OUTPUT WAVELENGTHS



(57) Abstract: A coherent laser radar (lidar) device is described. The device has a transmitter portion that comprises a single wavelength laser source, a conversion means (such as an electro-optic modulator) for producing a combined light beam that comprises at least two component light beams of discrete wavelength from the output of said single wavelength laser source, and transmit optics to direct the combined light beam to a remote target. Each component light beam of the combined light beam traverses the same optical path from the single wavelength laser source to the transmit optics. The device is used to make differential absorption measurements.

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